

Attorney Docket No.: **BUR920040017US1**

Confirmation No.: 3807

Examiner: LAM, K.

Art Unit: 2611

**For: METHOD AND APPARATUS FOR  
DYNAMICALLY MANAGING POWER  
CONSUMPTIONS OF SENDING  
AND RECEIVING DRIVERS**

MS Appeal Brief-Patents  
Commissioner for Patents  
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Alexandria, VA 22313-1450

In response to the Notification of Non-Compliant Appeal Brief under 37 C.F.R. § 41.37 dated April 29, 2008, please replace pages 1-6 of the previous Brief with the attached pages 1-6.

No fee or extension of time is believed to be required; however, in the event a fee or extension of time is required, please charge that fee to the IBM Corporation Deposit Account 09-0456.

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### **REAL PARTY IN INTEREST**

The present application is assigned to International Business Machines Corporation, the real party of interest.

### **RELATED APPEALS AND INTERFERENCES**

No related appeal is presently pending.

### **STATUS OF THE CLAIMS**

Claims 1-20, which were finally rejected by the Examiner as noted in the Final Office Action dated March 17, 2008 and in the Advisory Action dated April 16, 2008, are being appealed.

### **STATUS OF AMENDMENTS**

An Amendment was submitted on August 13, 2007 in reply to the Final Office Action dated July 17, 2007.

### **SUMMARY OF THE CLAIMED SUBJECT MATTER**

The claimed invention is related to a method for managing power consumptions of a sending driver and a receiving driver. Claim 1 recites a sensor being coupled to the sender and the sending driver (page 5, line 28; sensor 26 of Figure 2). The sensor adjusts the supply voltage level to the sending driver according to the amount of data that needed to be sent by the sender (page 5, line 28 - page 6, line 19; data level detector 31 within sensor 26 of Figure 3). The sending driver subsequently transmits the data on the transmission line to the receiving driver according to the adjusted supply voltage level (page 7, lines 5-7; sending driver 23 and transmission line 25 of Figure 3).

Claim 11 recites an apparatus having a sensor being coupled to a sender and a sending driver (page 5, line 28; sensor 26 of Figure 2). The apparatus includes an adjusting means for adjusting the supply voltage level to the sending driver according to the amount of data that needed to be sent by the sender (page 5, line 28 - page 6, line 19; data level detector 31 within

sensor 26 of Figure 3). The apparatus also include a transmitting means for transmitting data from the sender on the transmission line to the receiving driver according to the adjusted supply voltage level (page 7, lines 5-7; sending driver 23 and transmission line 25 of Figure 3).

### **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The Examiner's rejections of Claims 1-20 under 35 U.S.C. § 103(a) as being unpatentable over *McClennon et al.* (US 6,721,355) in view of *Morishita* (US 6,184,744).

### **ARGUMENT**

The Examiner's rejections of Claims 1-20 were not well-founded and should be reversed.

#### **I. *McClennon's* teachings direct to outgoing data only and not to incoming data as claimed**

Claim 1 (and similarly Claim 11) recites a step of "in response to an amount of data that needed to be sent by said sender, adjusting a supply voltage level by said sensor to said sending driver accordingly."

On page 5 of the Final Office Action, by characterizing *McClennon's* data traffic predictor 120 shown in Figure 3 as the claimed sensor, the Examiner asserts that the claimed adjusting step is disclosed by *McClennon* in col. 4, lines 43-65.

According to *McClennon*, the periodicity of the incoming traffic is determined by monitoring the incoming data traffic at a communications link (col. 4, lines 47-50). One of the two power modes (*i.e.*, a full on power mode and a quiescent power mode) of a modem is then selected according to the determined periodicity of the incoming data traffic (col. 4, lines 50-52). Since *McClennon's* teachings are related to incoming data traffic, it is not relevant to the claimed adjusting step concerning data needed to be sent (*i.e.*, outgoing data).

In the remaining portion of the Examiner's cited passage (*i.e.*, col. 4, lines 53-65), *McClennon* further teaches that the data traffic predictor can be utilized to estimate data traffic over a communications link to permit power management in the modem. Again, *McClennon's*

teachings are related to incoming data traffic only, and not related to outgoing data. For example, *McClennon* teaches that the data traffic predictor includes a data traffic monitor for detecting incoming data traffic at the modem as well as the arrival rate of the incoming data. The data traffic predictor also includes a periodicity detector for processing arrival rate as well as periodicity of the incoming data, and a power mode controller for determining one of the two above-mentioned power modes for modem operations based on the determined periodicity of the incoming data traffic. Thus, *McClennon*'s data traffic predictor is designed to handle incoming data traffic, which is not relevant to the claimed adjusting step concerning data needed to be sent (*i.e.*, outgoing data).

Because the claimed invention recites novel features that are not taught or suggested by *McClennon*, the § 103 rejection is improper.

## II. *McClennon* is related to incoming data instead of outgoing data as claimed

Claim 1 also recites a step of "transmitting data from said sender by said sending driver on said transmission line to said receiving driver according to said adjusted supply voltage level."

On page 5 of the Final Office Action, the Examiner asserts that the claimed transmitting step is disclosed by *McClennon* in col. 4, lines 8-18.

In col. 4, lines 8-18, *McClennon* teaches that a method for power management in a modem attached to a communications link includes monitoring a communications link for incoming data traffic, and if data traffic is detected on the communications link, the periodicity of the incoming data is determined. The power mode of the modem is then determined based on the determined periodicity of the incoming data traffic. Once again, since *McClennon*'s teachings are related to incoming data traffic, it is not relevant to the claimed transmitting step that is related to data to be transmitted.

In col. 1, lines 17-41, *Morishita* teaches the reduction of operating power supply voltage for the purpose of reducing power consumption. Appellants agree with the Examiner that the

reduction of power supply voltage allows the power consumption to be reduced in proportion to the square of the voltage reduction ratio, as explained in col. 1, lines 22-24 of *Morishita*. However, *Morishita* still does not teach or suggest the claimed adjusting step that is performed "in response to an amount of data that needed to be sent by said sender." In other words, the supply voltage level is adjusted in response to an amount of data that needed to be sent. *Morishita* does not teach or suggest such voltage adjustment. In addition, the claimed adjusting step involves both increasing and decreasing power supply voltage level, and not just the reduction of power supply voltage, as taught by *Morishita*.

Because the claimed invention recites novel features that are not found in the cited references, whether consider separately or in combination, the § 103 is believed to be overcome.